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THE EFFECT OF ROENTGEN RAYS UPON THE OVARY, AN EXPERIMENTAL AND MORPHOLOGIC STUDY, WITH CLINICAL DEDUCTIONS

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Systematic histologic studies of irradiated rabbit ovaries, at weekly intervals, for a period of seven weeks showed that the tertiary follicles are the most vulnerable to the effect of Roentgen rays, and that the ovule is the most sensitive part in the follicle. The primary follicles are not affected by a castration dose and can therefore continue to ovulate as soon as the effect of the irradiation is over, and should impregnation follow irradiation a normal pregnancy and normal offspring may be expected.

The fear that irradiated women will give birth to monsters or mentally defective children has thus far not been substantiated by experimental or clinical facts, and it may therefore be considered as purely hypothetical in nature.

Temporary castration can be accomplished at all ages, the dose is inversely proportional to the age of the female, the older the woman the smaller the dose required. Temporary sterilization should be employed whenever a suspension of ovarian function becomes a clinical indication.

Abortions can be induced with Roentgen rays, and with much smaller doses than is necessary to sterilize. Should the expected abortion not ensue, it becomes imperative to empty the uterus, for fear that a defective child may be born.

The follicular damage sustained from irradiations during pregnancy is far more extensive and involves all the follicles. If permanent castration is not desired at the time of the induction of the abortion, it can be avoided, by irradiating the uterus only.